

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (currently amended) Switched-mode power supply having comprising:
 - a transformer with a primary winding and at least one secondary winding,
 - a switching transistor coupled in series with the primary winding,
 - an integrated circuit comprising a driver stage for controlling the switching transistor, and a control circuit with an oscillator for regulating an output voltage, the oscillator providing a frequency being adjustable via a connection, ~~to which~~
an external capacitor is coupled with a first terminal to said connection and with a second terminal to ground, said capacitor being charged and discharged by said integrated circuit for adjusting a switching frequency of the driver stage, and
 - ~~wherein~~
a switching stage arranged between said first terminal and the connection is further coupled to the secondary winding for charging the capacitor in addition by means of an oscillation occurring on the secondary winding after discharge phase of the transformer in order to determine the switch-on time of the switching transistor.
2. (currently amended) Switched-mode power supply according to Claim 1,
wherein a the switching stage ~~is arranged between the connection and the secondary winding and~~ passes on a supply voltage to the connection when a sudden voltage change occurs on the secondary winding at the time of the oscillation ~~after a demagnetization phase of the transformer.~~
3. (previously presented) Switched-mode power supply according to Claim 2,
wherein the secondary winding produces a positive voltage pulse, which switches on the switching stage, when the oscillation occurs.

4. (previously presented) Switched-mode power supply according to Claim 2, wherein a voltage divider is arranged between the switching stage and the secondary winding in order to set a threshold value for the switching stage.
5. (previously presented) Switched-mode power supply according to Claim 2, wherein a capacitor is arranged between the switching stage and the secondary winding in order to limit a voltage pulse.
6. (previously presented) Switched-mode power supply according to Claim 1 wherein the switching stage is coupled to an output of the driver stage in order to block the switching stage when the switching transistor is switched on.
7. (previously presented) Switched-mode power supply according to Claim 6, wherein the switching stage is coupled via a resistor and a diode to the output of the driver stage.
8. (previously presented) Switched-mode power supply according to Claim 4, wherein the switching stage has a first switch, which is connected between the supply voltage and the connection and is switched on by a second switch when the voltage on the secondary winding exceeds the threshold value predetermined by the voltage divider.
9. (previously presented) Switched-mode power supply according to Claim 1, wherein the secondary winding is an auxiliary winding on the primary side of the transformer.
10. (previously presented) Switched-mode power supply according to Claim 1, the oscillator is controlled by an external circuit with a sawtooth voltage via the connection, the external circuit comprising a resistor and the capacitor, and wherein a logic circuit in the integrated circuit in each case alternately uses a first sawtooth pulse from the sawtooth voltage to limit a time for

which the switching transistor is switched on and a second sawtooth pulse from the sawtooth voltage in order to determine a phase in which the switching transistor is switched off.

11. (previously presented) Switched-mode power supply according to Claim 10, wherein the supply voltage is a reference voltage which is produced via an output of the integrated circuit.